

**Mukesh Dhakate | Product Design & Development Engineer**

An Engineering professional with 16+ years OEM experience in Product Design & development, New Product Introduction, Product Improvements & Engineering Project Management

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EDUCATION

- Bachelor of Mechanical Engineering

INDUSTRIES

- Construction Equipment / Heavy Machinery
- Automobiles Ancillaries

KEY COMPETENCIES

- New Product Development
- Engineering Project Execution (NPIP)
- Product Design
- Selection of components
- Benchmarking, Machine Validation & Technical Reviews
- BoM Analysis, Change Management
- Machine / Vehicle Integration
- Product Improvements
- Strategic & Collaborative Design
- Value Engineering
- Project Planning
- Cost Estimation

COMPUTATIONAL SKILLS

UG-NX 12 / SolidEdge / Teamcentre 12 / SAP R7 / MS office 2010

PROFESSIONAL ABRIDGEMENT

- A Mechanical Engineer & Product Design & Development professional with:
 - 12.5 years' experience working for JCB India Ltd, as a Manager looking after project and development of 8 to 22 ton Excavators.
 - 2.5 years' experience with Pratham Design Innovation, Pune as CAD Engineer.
 - 1.5 years' experience in Automobile ancillaries component manufacturing
- Good engineering skills, teamwork and design development experience within a professional environment, which helped in design and development of JCB Excavators.
- Developed key attributes of team management, commitment, organization and communication, through working alongside multi-disciplined teams on a global level throughout JCB group.
- Track record in engineering management, development and innovative design from concept through to manufacture, resulting in the reduction of costs through use of VA/VE (Value Analysis and Engineering), lean engineering and ease of production, while meeting tight deadlines.
- Coordinating the entire product development including requirement analysis, finalizing specifications, prototype planning and testing; making necessary modifications in the designed product.
- Project co-ordination experience in home and overseas divisions with the ability to manage projects.
- Skilled in developing tests to validate performance ability of new designs.
- Familiar with industrial concepts like 5S, Lean Manufacturing, KAIZEN, DFMEA, VA/VE design methods.

GROWTH PATH

Tenure	Role	Organization
Jul'03–Jan'04	Quality Engineer	AGSA Enterprise
Feb'04–Sep'04	Production Engineer	Involute Technologies
Oct'04–Feb'06	CAD Engineer (Worked in Tata Elxsi as a business associate)	Classic CAD Services
Apr'06 – July'07	Application Engineer	Pratham Design Innovation
Aug'07 – Dec'11	Senior Engineer (India Design Centre)	JCB India
Jan'12 – Dec'12	Deputy Manager (Heavy Line BU)	JCB India
Jan'13 – Dec'16	Manager (Heavy Line BU)	JCB India
Jan'17 – till date	Manager (India Center of Excellence)	JCB India

Jan'17 to till date JCB India Ltd. MS India**Reporting Structure**

Reporting to	DGM Excavators Projects > Head – Excavator Engineering
Report	03 Design Engineers
Team	Product Engineering (Excavators) India
Liaising with	Project Manager, Testing and validation, Manufacturing Engineering, Purchase, Production, Quality, Sales & Services.
External	Vendors, Legislation Authorities, External Test and Development agencies

KEY DELIVERABLES (JCB India Ltd)

Limited Project Management (New Product Introduction Process) – Within Product Engineering

- Create Project scope document.
- Finalization of Requirement log from marketing inputs & requirements on attributes and creation of Engineering Design brief.
- Define expected project scale, timeline & complexity.
- Inter-departmental Meetings (War Room) & documenting requirements & affordability to finalize on product-positioning.
- Benchmarking & target competitor for Fuel Consumption & Productivity.
- Providing Engineering inputs for creating Business case document.
- Review of solutions available in Product Groups.
- Create synthetic BoM to outline design release plan and change management.
- Address of major service issues & top 10 functional carryover issues.
- Scope for different types of possible attachments for product.
- Decision on make or buy, part reuse & backward compatibility strategy.
- Testing & Validation Planning (DVPSOR) & completion with testing team.
- Engineering Signoff (ESO) based on Technical Reviews & Key Component Suppliers sign off.
- Documenting DFMEA requirements.
- Design release of long lead items on priority.
- Gate tracker monitoring, reviews and action.
- Responding to DFMEA requirements and getting design changes done.
- Design releases according agreed plan of synthetic BoM.
- Conducting Fit-for-Purpose Signoffs & assisting MBOM (SAP BOM) creation.
- Continuous monitoring of design release plan & resource management to meet the plan.
- Monitoring of part availability for building sub-assemblies.
- PCM closures of build issues rose during prototype & resulting risk assessment for deviations.
- Engineering Signoff Documentation entailing comparison of agreed and delivered scope, agreed and delivered timelines, confirmation of 100% closure of Validation items, 100% SOP validation, Engineering Issues – Problems & countermeasures.
- Review of project success and implement continuous improvement changes (Lessons Learnt)
- Review project metrics after a 6 months,12 months in production

Product Improvements – Within Product Engineering (January 2012 – December 2016)

- Product service Issues - Providing support to close issues within 30-60-90 days' timeline.
- Production line PCM's - Attending regular Line PCM's meeting and resolving production line issues with timely decisions, documenting the same in group improvement tracker for horizontal deployment in ePI.
- Providing support in problem and defect analysis in materials and product quality related issues; preparing testing and troubleshooting charts and complete documentation of the product.
- Representing Product Engineering Team during Production Line & Service Meetings.
- Worked on design modification & order fulfilment of 8 tonne excavators for defence tenders.

India Design Center (August 2007 – December 2011)

- Worked for Landpower division UK for their product Fastrac, CAB systems.
- Support for Heavyline Compactor & WLS division as a CAD resource.
- Requirement analysis, Planning, Project Layout preparation, Product Design & drawing release.
- Formulation of design task and SOW in consultation with JCB UK Engineering.
- Perform need based basic design calculations for selection of systems.
- Co-ordinated and managed projects in home and overseas divisions
- Worked on Combination master project for different variants

KEY PROJECTS - JCB India Ltd

New Product Introduction Process (Jan 2017– till date)	Product Improvements (2012 – 2016)	JCB India Design Center (2007 – 2011)
JS300 & JS370 T4F India to USA	JS81, JS120, JS140, JS205, JS220 - Line & Service issues addressal	UK Landpower Fastrac, CAB systems
JCB140 CEMM4 (BSIV)	Auto Idle system, AC only option, Undercarriage & Track components	HLBU Compactors & WLS support
JS305 India	Adaptors – Leak free project	CAD support to UK division
JS81, JS140 Upgrade	JS220 Extreme fuel filtration	Reverse Engineering of Fastrac cabin parts

KEYPOINTS:

- Fuel saving in JS81 by implementation of Auto Idler system.
- Cost saving by implementation of Jinsung track components in JS81 & JS305.

Apr'06–Jul'07: Pratham Design Innovation, Pune MS India as Application Engineer

- Conversion of 3D unparametric / IGES data in to parametric solid model.
- Working on customization of product by using Knowledge Fusion language.
- Modeling by using Interpart Expressions.

Major Projects done

- Glove Box Assembly (CAD modeling & Detailing)
- Automation of Flash tank heat exchanger for BHEL, Bhopal (UG Knowledge fusion programming).
- Automation of Transformer for BHEL, Bhopal (Interpart expression based, Input wizard using UI styler)

Oct'04–Feb'06: Classic CAD Services, Pune MS India as CAD Engineer (UG-NX)

- CAD modeling & detailing projects – Engine Manifold assembly, Two wheeler body cover, seat assembly etc.
- Team Size: 8 Members, Duration: 600 hours.
- Projects at TATA Elxsi Ltd. (As a Business Associate from Classics CAD Services.) Client: ISUZU Japan.
 1. Modeling and Detailing of various components of ISUZU truck like REINFORCEMENT ASSEMBLY, ENGINE HOOD, PAN BED etc.
 2. Assembly and Detailing of the Engine Hood Assembly, Floor assembly, Door Inner panel etc.
 3. Parametric modeling and detailing of components using the given IGES and 2D data with in given tolerance values.
 4. 3D Modeling of Body in white Auto components, assemblies and detailing using UnigraphicsNX2. Checking the quality of the components, assemblies and drawings using GM Toolkit.

Feb'04–Sep'04: Involute Technologies Pvt. Ltd. Pune MS India as Production & Planning Engineer

- Department – Production and Planning

- Planning of manufacturing process as per schedule given by customer.
- Production of job as per customer requirement.
- Drawing of various process control plans of stage operations.
- Inspection of jobs which are underdevelopment (Heat treatment report, ID / OD spline checking)
- Familiar with all gear manufacturing process.

Jul'03–Jan'04: AGSA Enterprises, Pune MS India as Quality Engineer

- Department – Quality and Inspection

- Inspection of Items like spring, clamps, dipsticks, circlips etc.
- Inspection of raw materials like spring steel wires, brass sheets etc. for there properties.
- Drawing of process plan and quality control plans on Auto CAD.
- Handling of machines like spring load testing machines, universal testing machines, hardness tester, profile projectors.

PERSONAL DETAILS

Date of Birth	:	03 rd October 1979
Languages Known	:	English, Hindi and Marathi
Marital Status	:	Married
Passport Number	:	S0432554, Valid Till 22/02/2028
